

WHAT IS CLAIMED IS:

- Sub B1 } 1. An image processing method comprising the steps of:
- 5 obtaining a profile having a plurality of colorimetric data which depend on a plurality of light sources;
- inputting a viewing condition;
- selecting colorimetric data from the plurality of
- 10 colorimetric data in accordance with the input viewing condition; and
- conjecturing colorimetric data corresponding to the input viewing condition based on the selected colorimetric data.
- 15 Sub B2 } 2. The method according to claim 1, further comprising the step of caching the conjectured colorimetric data to the profile.
- 20 3. The method according to claim 1, further comprising the step of generating conversion data for color matching based on the conjectured colorimetric data.
- 25 Sub B2 } 4. The method according to claim 1, wherein said selecting step selects colorimetric data by

comparing a chromaticity of a light source designated by the input viewing condition with chromaticities of the plurality of light sources of the colorimetric data.

5 5. The method according to claim 1, wherein said selecting step selects colorimetric data by comparing a color temperature of a light source designated by the input viewing condition with color temperatures of the plurality of light sources of the
10 colorimetric data.

 6. The method according to claim 1, wherein said conjecturing step conjectures colorimetric data corresponding to the input viewing condition by using a
15 color appearance model.

Sub 03 7. The method according to claim 1, wherein the conjectured colorimetric data is cached to the profile in correspondence with the input viewing condition.
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Sub 03 8. An image processing method comprising the steps of:

 obtaining a profile having a plurality of colorimetric data which depend on a plurality of light
25 sources;

 inputting a viewing condition;

selecting colorimetric data from the plurality of
colorimetric data in accordance with the input viewing
condition; and

generating data for color matching corresponding
5 to the input viewing condition based on the selected
colorimetric data.

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D-17 9. The method according to claim 8, further
comprising the step of caching the generated data to the
10 profile.

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D-17 10. The method according to claim 7, wherein
said selecting step selects colorimetric data by
comparing a chromaticity of a light source designated by
15 the input viewing condition with chromaticities of the
plurality of light sources of the colorimetric data.

11. The method according to claim 7, wherein
said selecting step selects colorimetric data by
20 comparing a color temperature of a light source
designated by the input viewing condition with color
temperatures of the plurality of light sources of the
colorimetric data.

25 12. The method according to claim 7, wherein
said conjecturing step conjectures' colorimetric data

corresponding to the input viewing condition by using a color appearance model.

13. The method according to claim 7, wherein the
5 conjectured colorimetric data is cached to the profile in correspondence with the input viewing condition.

14. An image processing apparatus comprising:
obtaining means for obtaining a profile having a
10 plurality of colorimetric data which depend on a plurality of light sources;
inputting means for inputting a viewing condition;
selecting means for selecting colorimetric data
from the plurality of colorimetric data in accordance
15 with the input viewing condition; and
conjecturing means for conjecturing colorimetric data corresponding to the input viewing condition based on the selected colorimetric data.

20 15. The apparatus according to claim 14, further comprising caching means for caching the conjectured colorimetric data to the profile.

16. An image processing apparatus comprising:
25 obtaining means for obtaining a profile having a plurality of colorimetric data which depend on a

plurality of light sources;

inputting means for inputting a viewing condition;

selecting means for selecting colorimetric data
from the plurality of colorimetric data in accordance
5 with the input viewing condition; and

generation means for generating data for color
matching corresponding to the input viewing condition
based on the selected colorimetric data.

10 17. The apparatus according to claim 16, further
comprising caching means for caching the generated data
to the profile.

15 18. A computer program product comprising a
computer readable medium having computer program codes,
for an image processing method, said product comprising:

obtaining process procedure code for obtaining a
profile having a plurality of colorimetric data which
depend on a plurality of light sources;

20 input process procedure code for inputting a
viewing condition;

selection process procedure code for selecting
colorimetric data from the plurality of colorimetric
data in accordance with the input viewing condition; and

25 conjecturing process procedure code for
conjecturing colorimetric data corresponding to the

input viewing condition based on the selected
colorimetric data.

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5 19. The product according to claim 18, further
comprising caching process procedure code for caching
the conjectured colorimetric data to the profile.

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B5
20. A computer program product comprising a
computer readable medium having computer program codes,
10 for an image processing method performing color process
on input image data based on a color appearance model,
said product comprising:
obtaining process procedure code for obtaining a
profile having a plurality of colorimetric data which
15 depend on a plurality of light sources;
input process procedure code for inputting a
viewing condition;
selection process procedure code for selecting
colorimetric data from the plurality of colorimetric
20 data in accordance with the input viewing condition; and
generation process procedure code for generating
data for color matching based on the selected
colorimetric data.

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17 21. The product according to claim 20, further
comprising caching process procedure code for caching

the generated data to the profile.